

I claim:

1. An isolated Nope polypeptide, or functional fragment thereof, comprising the amino acid sequence of a Nope polypeptide (SEQ ID NO:2), or a modification thereof.

5           2. The isolated Nope polypeptide of claim 1, wherein said functional fragment comprises the amino acid sequence of a Nope polypeptide extracellular domain (SEQ ID NO:4).

          3. The isolated Nope polypeptide of claim 2,  
10 wherein said functional fragment comprises an amino acid sequence selected from the group consisting of immunoglobulin domain 1 (SEQ ID NO:8), immunoglobulin domain 2 (SEQ ID NO:10), immunoglobulin domain 3 (SEQ ID NO:12), immunoglobulin domain 4 (SEQ ID NO:14), fibronectin domain 1  
15 (SEQ ID NO:16), fibronectin domain 2 (SEQ ID NO:18), fibronectin domain 3 (SEQ ID NO:20), fibronectin domain 4 (SEQ ID NO:22), and fibronectin domain 5 (SEQ ID NO:24).

          4. The isolated Nope polypeptide of claim 1, wherein said functional fragment comprises the amino acid  
20 sequence of a Nope polypeptide intracellular domain (SEQ ID NO:6).

          5. An antibody that specifically binds the Nope polypeptide of claim 1.

          6. The antibody of claim 5, wherein said antibody  
25 is a polyclonal antibody.

7. The antibody of claim 5, wherein said antibody is a monoclonal antibody.

8. A method of detecting a Nope polypeptide, comprising contacting a sample with the antibody of claim 5,  
5 and detecting specific binding of said antibody.

9. An isolated nucleic acid molecule encoding a Nope polypeptide amino acid sequence referenced as SEQ ID NO:2, or a modification thereof.

10. An isolated nucleic acid molecule comprising  
10 the nucleotide sequence referenced as SEQ ID NO:1, or a modification thereof.

11. The nucleic acid molecule of claim 10,  
wherein said nucleotide sequence is selected from the group consisting of SEQ ID NOS:3, 5, 7, 9, 11, 13, 15, 17, 19, 21  
15 and 23.

12. A Nope oligonucleotide, comprising between 15 and 300 contiguous nucleotides of SEQ ID NO:1 or the anti-sense strand thereof.

13. The isolated Nope oligonucleotide of claim  
20 12, wherein said oligonucleotide comprises between 15 and 300 contiguous nucleotides of SEQ ID NO:5 or the anti-sense strand thereof.

14. A vector comprising an expression element operationally linked to the nucleotide sequence of claim 10.

15. A host cell comprising the vector of claim 13.

16. A method of detecting a Nope nucleic acid molecule in a sample, comprising contacting said sample with  
5 a Nope oligonucleotide of claim 12 under conditions allowing specific hybridization to a Nope nucleic acid molecule, and detecting said specific hybridization.

17. A method of detecting a Nope nucleic acid molecule in a sample, comprising contacting said sample with  
10 a Nope oligonucleotide of claim 13 under conditions allowing specific hybridization to a Nope nucleic acid molecule, and detecting said specific hybridization.

18. A method of detecting a Nope nucleic acid molecule in a sample, comprising contacting said sample with  
15 two or more Nope oligonucleotides of claim 12, amplifying a nucleic acid molecule, and detecting said amplification.

19. The method of claim 18, wherein said amplification is performed using polymerase chain reaction.

20. A kit comprising one or more Nope oligonucleotides comprising between 15 and 300 contiguous nucleotides of SEQ ID NO:1 or the anti-sense strand thereof.